

Lecture 17: Monetary Policy

I. OVERVIEW

- In the last lecture, we looked at how fiscal policy can be useful in minimizing economic fluctuations and we also examined what would happen when fiscal policy affects potential output.
- In the next two lectures, we take a closer look at monetary policy to understand the actual workings of the monetary policy making decisions and the structure of the U.S. Federal Reserve System.
- Finally, an important portion of the understanding of the role of money is the trip to the Federal Reserve. Information acquired on this trip constitutes a vital portion of the learning process for this class.

II. THE FEDERAL RESERVE

Long Term Horizon

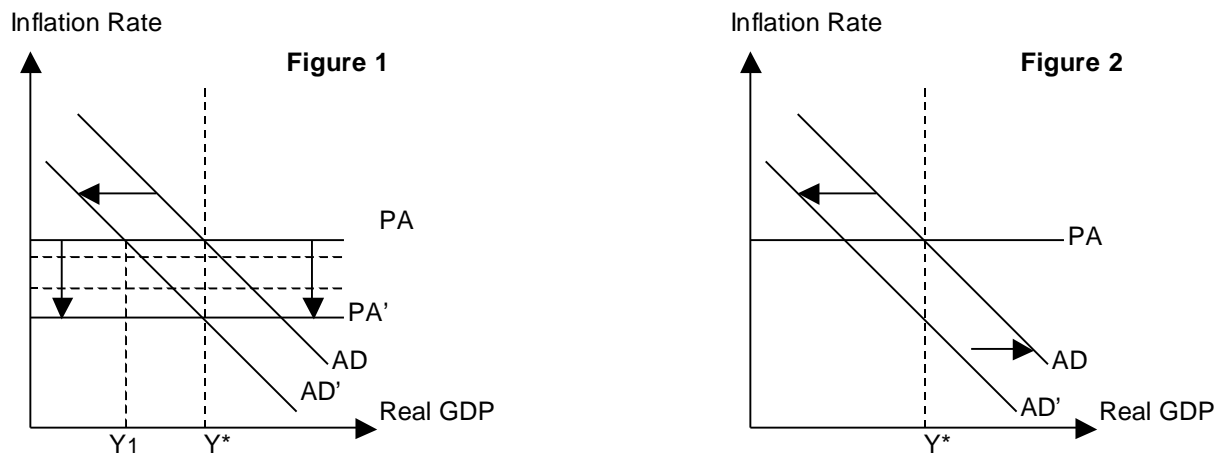
- Governments, facing elections every 2-6 years are often tempted to implement policy changes that benefit the economy in the short run but have little or no impact on output in the long run. On the contrary, the Federal Reserve doesn't face similar temptations to implement policies that are beneficial in the short run but have potentially negative impacts in the long run.
- One of the first things we need to know about is the structure of the Federal Reserve System. The Federal Reserve System consists of the Federal Reserve Board and 12 regional Federal Reserve banks. These banks, set up by the Federal Reserve act of 1913, are located in Boston, New York, Philadelphia, Richmond, Atlanta, Cleveland, St. Louis, Kansas City, Chicago, Minneapolis, Dallas and San Francisco.
- The Board of Governors consists of 7 members appointed by the President to 14 YEAR terms. A Chairman is selected by the president to a 4 year term from among the Board of Governors.

Independence

- Economists also attach great importance to the degree of independence granted to the central bank in a country by the government. The degree of freedom given to the central bank varies widely across countries: but the U.S and Germany are recognized to have very independent central banks.
- In the U.S., the governor of the Federal Reserve is appointed to terms that span multiple presidents to preserve independence. In general, the likelihood that a president would replace the current chairman of the Federal Reserve is remote. Some call Alan Greenspan "the most powerful man in the world".
- Economists believe that greater central bank independence leads to better economic performance by allowing the Central Bank to focus on the long run and by disassociating the central bank from having to continually worry about the short-term benefits to the economy.
- Now that we have established the long-term perspective and the independence of the Central Bank to a certain degree the next task is to see how the Fed should react to various changes in the economy.

III. MONETARY POLICY IN A RECESSION

- First we will look at the appropriate response to a shock that causes a recession in the economy. An example would be a stock market crash: an event that would reduce consumer confidence and move the AD curve in.
- If the Fed does nothing then output will fall below potential output and inflation will fall over time. As inflation falls, the Fed will lower interest rates and output will increase back to Y^* . This is shown in Figure 1.
- If the Fed does not want the economy to undergo a short-term recession and a period of disinflation, then they can instead lower interest rates today and shift the AD curve back to Y^* . This is shown in Figure 2.



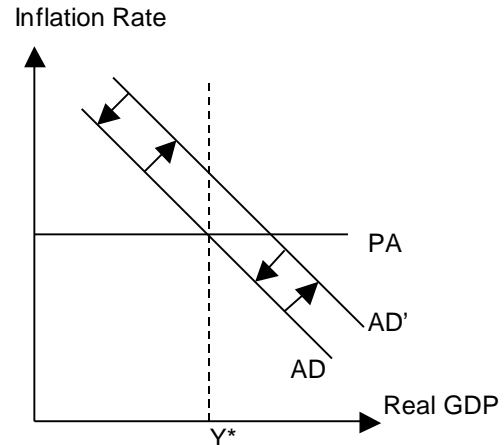
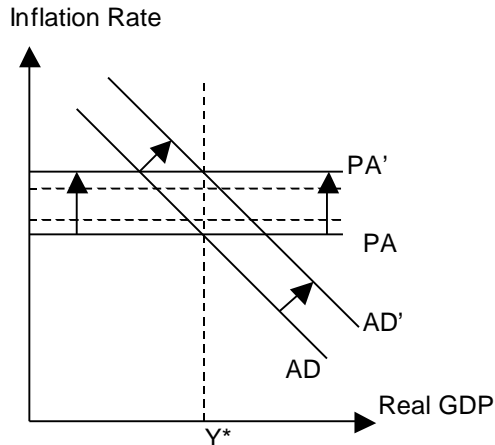
- Why would the Fed be willing to lower interest rates today, i.e. pursue expansionary monetary policy? Consider the difference between Figure 1 and Figure 2. In terms of output, both policies will leave the economy at Y^* in the long run. In the short run of course, lowering interest rates today seems better because we were able to avoid a short run recession.
- In terms of inflation, both policies will leave inflation unchanged in the short run. In the long run, lowering interest rates today leaves the economy with a higher rate of inflation.
- If we assume that the Fed has a long term horizon then it should not lower rates today because that will not affect Y in the long run and leave the economy with a higher rate of inflation. But the Fed also likes stability so it may lower interest rates today and keep inflation stable.
- So either response, lowering interest rates today, or waiting till inflation actually falls and then following their policy rule could be a possible response in this scenario. The option the Fed chooses may well depend on the current level of inflation in the economy.
- If the current inflation level is high, they may prefer the economy return to Y^* with a lower rate of inflation. If inflation is currently low, the Fed may opt for stability and lower rates to keep inflation and output stable.

IV. HOW TO PICK THE MONETARY POLICY MOST APPROPRIATE FOR A GIVEN CHANGE IN FISCAL POLICY

- The next task is to decide how the Fed should choose the most appropriate monetary policy response to a given change in fiscal policy.
- For illustration purposes, we will focus on the recent plans by Congress to provide a substantial tax cut to the economy. How should Alan Greenspan and the Fed react to this decision? What policy decision should they implement?

Case 1: A Tax Cut

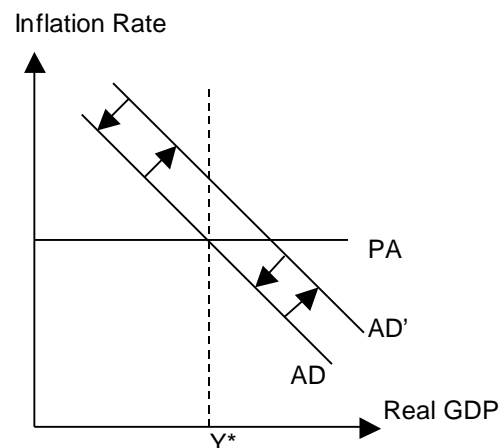
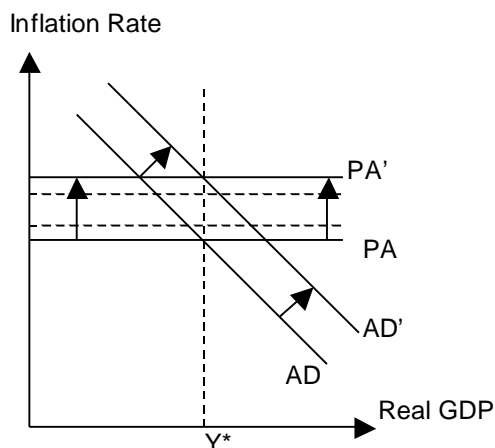
- The first task is to look at what would happen to the economy as a result of the tax cut. We showed that the tax cut will increase output and leave inflation unchanged in the short run but that the long-term impact is to raise inflation and leave output unchanged. [See Figure 1]
- If the Fed does not like this change in the economy (and it surely will not if it has a long-term outlook), then it can pursue contractionary monetary policy, i.e. raise interest rates at the existing rate of inflation. This will shift the AD curve in and move the economy back to Y^* .



- So the Fed will react to the tax cut by increasing interest rates today and move the economy back to potential output. So even though Congress may be thinking that the tax cut will help boost output in the short run and help their re-election campaign, they may be ignoring the role of the Fed, which will try to keep output at Y^* even in the short run.

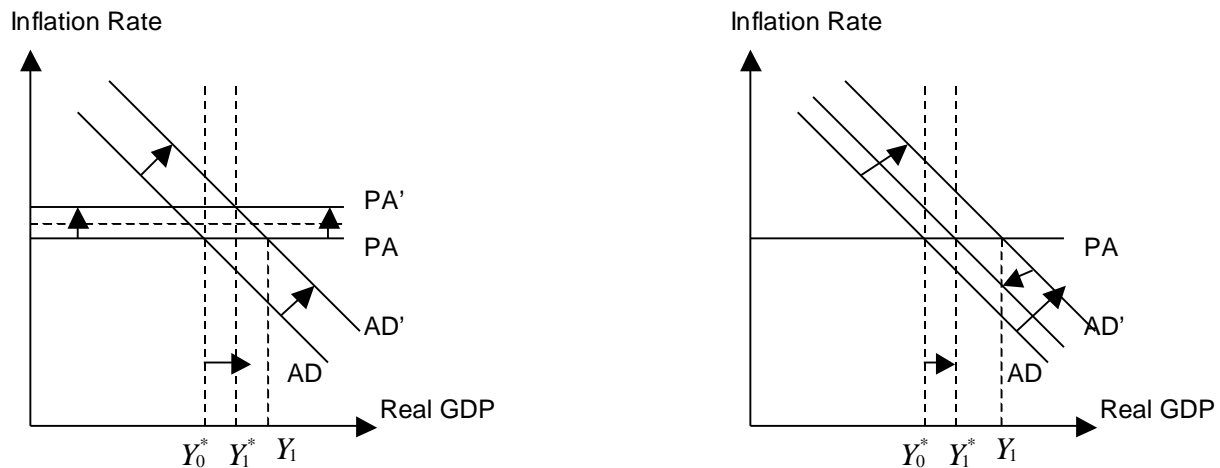
Case 2: An Increase in Government Spending (Y^* is unaffected)

- The case of an increase in government purchases that leaves Y^* unaffected is similar to the case of a tax cut. The increase in government purchases shifts the AD curve out. This will increase output and leave inflation unchanged in the short run.
- As before, the long-term impact is to raise inflation and leave output unchanged. [See Figure 1]. Once again, the Fed does not like this change in the economy then it can raise interest rates at the existing rate of inflation. This will shift the AD curve in and move the economy back to Y^* .



Case 3: An Increase in Government Spending (Y^* is affected)

- Now consider the case of an increase in government purchases that increases Y^* as well. The increase in G shifts the AD curve out. This will increase output and leave inflation unchanged in the short run. The long-term impact is different: there is a smaller increase in inflation and output is now higher than before. [See Figure 1].
- Once again, if the Fed does not like this change in the economy then it can raise interest rates but not by as much as before. This will shift the AD curve in and move the economy back to Y^* .



VI. THE IMPORTANCE OF Y^* FOR MONETARY POLICYMAKERS

- The previous three examples showed that the reaction of the Fed to a change in expansionary fiscal policy depends on whether the fiscal policy affected Y^* or not. The task of the Fed can be seen as trying to move the economy to the new potential output level by changing the interest rate.
- If the increase in government purchases was on technology, more public investment, education, job training programs etc. the Fed should be less inclined to raise interest rates today and move the economy back.
- On the other hand, if the increase in government purchases did not affect the economy's ability to produce in the long run, the Fed should be more inclined to raise interest rates today and move the economy back.
- The intuitive reason is that the eventual rise in inflation depends on how far Y is above Y^* . Therefore, in the case of "good" government spending, the Fed will realize that the gap between Y and Y^* will not be as great as in the case of "ineffective" government purchases. It will therefore be less inclined to try to reduce current GDP.
- We can see that predicting the impact of economic changes on Y^* remains an important part of the Fed's job description. What policy the Fed decides to follow is critically dependent upon what is happening to Y^* . This is the primary reason behind recent disgruntlement with the Fed in some circles: some people believed $Y > Y^*$ and therefore the Fed should have raised rates, while others believed that Y^* had increased as well so there was little need for the Fed to raise rates.